



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Applicant:

Eilon BARNEA et al

Serial No.: 10/705,459

Filed: November 12, 2003

For: METHOD OF IDENTIFYING PEPTIDES ...

Examiner:

[illegible]

Group Art Unit: 1641

Attorney  
Docket: 26884

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

### REQUEST FOR CORRECTED FILING RECEIPT

Sir:

Attached is a copy of the official filing receipt received from the United States Patent and Trademark Office in the above application. Issuance of a corrected filing receipt to correct an error of the USPTO is respectfully requested.

Please add to "Domestic Priority data as claimed by applicant:"

Which claims priority from 09/865,548 5/29/2001 and 60/290,958 5/16/2001

A copy of the first page of the application and the Declaration setting forth the above is attached hereto.

Respectfully submitted,

Al Shaban

Sol Sheinbein  
Registration No. 25,457

Date: June 14, 2004



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
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|------------|---------------------------|----------|---------------|-----------------|----------|----------|----------|
| 10/705,459 | 11/12/2003                | 1641     | 1446          | 26884           | 6        | 71       | 17       |

CONFIRMATION NO. 8318

G.E. EHRLICH (1995) LTD.  
 c/o ANTHONY CASTORINA  
 SUITE 207  
 2001 JEFFERSON DAVIS HIGHWAY  
 ARLINGTON, VA 22202

## FILING RECEIPT



\*OC000000012370706\*

Date Mailed: 04/15/2004

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).**

## Applicant(s)

Eilon Barnea, Nesher, ISRAEL;  
 Ilan Beer, Haifa, ISRAEL;  
 Tamar Ziv, Haifa, ISRAEL;  
 Arie Admon, Kiryat Tivon, ISRAEL;  
 Lior Dassau, Haifa, ISRAEL;  
 Samuel Buchsbaum, Lyon, FRANCE;

## Assignment For Published Patent Application

Technion Research &amp; Development Foundation Ltd.;

## Domestic Priority data as claimed by applicant

## Foreign Applications

If Required, Foreign Filing License Granted: 03/29/2004

Projected Publication Date: 05/12/2005

Non-Publication Request: No

Early Publication Request: No

\*\* SMALL ENTITY \*\*

**Title**

Method of identifying peptides capable of binding to MHC molecules, peptides identified thereby and their uses

**Preliminary Class**

436

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Title 35, United States Code, Section 184  
Title 37, Code of Federal Regulations, 5.11 & 5.15**

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1  
APPLICATION FOR PATENT

Inventors: BARNEA Eilon, BEER Ilan, ZIV Tamar, ADMON Arie,  
5 DASSAU Lior, and BUCHSBAUM Samuel

Title: METHOD OF IDENTIFYING PEPTIDES CAPABLE OF BINDING  
TO MHC MOLECULES, PEPTIDES IDENTIFIED THEREBY AND THEIR  
USES

10 This application is a continuation in part of PCT Patent Application No.  
PCT/IL02/00383, filed May 16, 2002, which claims priority from pending U.S.  
Patent Application No. 09/865,548, filed May 29, 2001, and U.S. Provisional  
Application No. 60/290,958, filed May 16, 2001.

15  
FIELD AND BACKGROUND OF THE INVENTION

The present invention relates to a method of identifying peptides of a  
desired origin and which are capable of binding to MHC molecules of a  
20 particular haplotype; peptides identified by the method; pharmaceutical  
compositions containing the peptides, databases describing the peptides and  
the use of the peptides in vaccination.

The following abbreviations are used herein: MHC, Major  
Histocompatibility Complex;  $\beta 2m$ ,  $\beta 2$ -microglobulin; ESI, electrospray  
25 ionization; MS, mass spectrometry;  $m/z$ , mass charge ratio; CID, collision  
induced disintegration; MS/MS, tandem mass spectrometry; MTDM, DNA-  
methyl transferase; FAS, fatty acid synthase; CTL, cytotoxic T lymphocytes;  
mAbs, monoclonal antibodies.

The MHC serves as a shuttle to transport and display peptide antigens  
30 on the surface of cells as an indication to the immune system of the health state  
of the cells. Each individual has at most six different MHC class-I haplotypes,  
out of the hundreds known. MHC bound peptides, i.e., peptides bound to, and  
presented in context of, MHC molecules, originate from proteolysis of most of  
the proteins expressed in the cells. Therefore, unique sets of MHC bound  
35 peptides are displayed by each of the different MHC haplotypes according to

Docket No.  
**26884**

# Declaration and Power of Attorney For Patent Application

## English Language Declaration

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

### **METHOD OF IDENTIFYING PEPTIDES CAPABLE OF BINDING TO MHC MOLECULES, PEPTIDES IDENTIFIED THEREBY AND THEIR USES**

the specification of which



is attached hereto.



was filed on \_\_\_\_\_ as United States Application No. or PCT

International Application Number \_\_\_\_\_

and was amended on \_\_\_\_\_

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) or Section 365(b) of any foreign application(s) for patent or inventor's certificate, or Section 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Priority Not Claimed

\_\_\_\_\_  
(Number)

\_\_\_\_\_  
(Country)

\_\_\_\_\_  
(Day/Month/Year Filed)



\_\_\_\_\_  
(Number)

\_\_\_\_\_  
(Country)

\_\_\_\_\_  
(Day/Month/Year Filed)



\_\_\_\_\_  
(Number)

\_\_\_\_\_  
(Country)

\_\_\_\_\_  
(Day/Month/Year Filed)



I hereby claim the benefit under 35 U.S.C. Section 119(e) of any United States provisional application(s) listed below:

60/290,958  
(Application Serial No.)

16-May-2001  
(Filing Date)

\_\_\_\_\_  
(Application Serial No.)

\_\_\_\_\_  
(Filing Date)

\_\_\_\_\_  
(Application Serial No.)

\_\_\_\_\_  
(Filing Date)

I hereby claim the benefit under 35 U.S.C. Section 120 of any United States application(s), or Section 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. Section 112. I acknowledge the duty to disclose to the United States Patent and Trademark Office all the information known to me to be material to patentability as defined in Title 37, C.F.R., Section 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

PCT/IL02/00383  
(Application Serial No.)

16-May-2002  
(Filing Date)

\_\_\_\_\_  
(Status)  
(patented, pending, abandoned)

09/865,548  
(Application Serial No.)

29-May-2001  
(Filing Date)

Pending  
(Status)  
(patented, pending, abandoned)

\_\_\_\_\_  
(Application Serial No.)

\_\_\_\_\_  
(Filing Date)

\_\_\_\_\_  
(Status)  
(patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. *(list name and registration number)*

|                  |                            |
|------------------|----------------------------|
| Sol SHEINBEIN,   | Registration Number 25,457 |
| D'vorah GRAESER, | Registration Number 40,000 |
| Martin MOYNIHAN, | Registration Number 40,338 |
| Rochel ABOUDI,   | Registration Number 44,490 |

Send Correspondence to: G.E. EHRLICH (1995) LTD.  
c/o ANTHONY CASTORINA  
2001 JEFFERSON DAVIS HIGHWAY, SUITE 207  
ARLINGTON, VIRGINIA 22202

Direct Telephone Calls to: *(name and telephone number)*

Anthony Castorina

Tel. No. (703) 415-1581  
Fax No. (703) 415-4864

|                                     |  |
|-------------------------------------|--|
| FULL NAME OF SOLE OR FIRST INVENTOR | BARNEA Eilon                               |
| Sole or first inventor's signature  | <u>[Signature]</u> Date <u>23-10-03</u>    |
| Residence                           | : 10 HaSavion Street, 36822 Nesher, Israel |
| Citizenship                         | : Israeli                                  |
| Post Office Address                 | : 10 HaSavion Street, 36822 Nesher, Israel |

|                                      |   |
|--------------------------------------|---|
| FULL NAME OF SECOND INVENTOR, IF ANY | BEER Ilan                                   |
| Second inventor's signature          | <u>[Signature]</u> Date <u>Oct 23, 2003</u> |
| Residence                            | : 21 HaAssif Street, 34637 Haifa, Israel    |
| Citizenship                          | : Israeli                                   |
| Post Office Address                  | : 21 HaAssif Street, 34637 Haifa, Israel    |

|                                     |   |  |
|-------------------------------------|---|--|
| FULL NAME OF THIRD INVENTOR, IF ANY |   | <b>ZIV Tamar</b>                         |
| Third inventor's signature          |   | Date                                     |
| Residence                           | : | 10 Aharonson Street, 34785 Haifa, Israel |
| Citizenship                         | : | Israeli                                  |
| Post Office Address                 | : | 10 Aharonson Street, 34785 Haifa, Israel |

|                                      |   |   |
|--------------------------------------|---|---|
| FULL NAME OF FOURTH INVENTOR, IF ANY |   | <b>ADMON Arie</b>                         |
| Fourth inventor's signature          |   | Date                                      |
| Residence                            | : | 3 Irit Street, 36532 Kiryat Tivon, Israel |
| Citizenship                          | : | Israeli                                   |
| Post Office Address                  | : | 3 Irit Street, 36532 Kiryat Tivon, Israel |

|                                     |   |   |
|-------------------------------------|---|---|
| FULL NAME OF FIFTH INVENTOR, IF ANY |   | <b>DASSAU Lior</b>  |
| Fifth inventor's signature          |   | Date  |
| Residence                           | : | 3 Hasidey Umot HaOlam Street, Ramat Alon, 75546 Haifa, Israel |
| Citizenship                         | : | Israeli   |
| Post Office Address                 | : | 3 Hasidey Umot HaOlam Street, Ramat Alon, 75546 Haifa, Israel |

|                                     |   |   |
|-------------------------------------|---|---|
| FULL NAME OF SIXTH INVENTOR, IF ANY |   | <b>BUCHSBAUM Samuel</b>                         |
| Sixth inventor's signature          |   | Date <u>03.11.2003</u>                          |
| Residence                           | : | 207 Avenue Barthelémy Buyer, Lyon 69005, France |
| Citizenship                         | : | French  |
| Post Office Address                 | : | 207 Avenue Barthelémy Buyer, Lyon 69005, France |



|                                      |                         |  |
|--------------------------------------|-------------------------|--|
| FULL NAME OF THIRD INVENTOR , IF ANY |                         | <b>ZIV Tamar</b>                         |
| Thirld inventor's signature          | <u><i>Tamar Ziv</i></u> | Date <u>23 Oct 2003</u>                  |
| Residence                            | :                       | 10 Aharonson Street, 34785 Haifa, Israel |
| Citizenship                          | :                       | Israeli                                  |
| Post Office Address                  | :                       | 10 Aharonson Street, 34785 Haifa, Israel |

|                                       |                          |   |
|---------------------------------------|--------------------------|---|
| FULL NAME OF FOURTH INVENTOR , IF ANY |                          | <b>ADMON Arie</b>                         |
| Fourth inventor's signature           | <u><i>Arie Admon</i></u> | Date <u>27 Oct 2003</u>                   |
| Residence                             | :                        | 3 Irit Street, 36532 Kiryat Tivon, Israel |
| Citizenship                           | :                        | Israeli                                   |
| Post Office Address                   | :                        | 3 Irit Street, 36532 Kiryat Tivon, Israel |

|                                      |                          |   |
|--------------------------------------|--------------------------|---|
| FULL NAME OF FIFTH INVENTOR , IF ANY |                          | <b>DASSAU Lior</b>  |
| Fifth inventor's signature           | <u><i>Lior Dassa</i></u> | Date <u>23.10.03</u>  |
| Residence                            | :                        | 3 Hasidey Umot HaOlam Street, Ramat Alon, 75546 Haifa, Israel |
| Citizenship                          | :                        | Israeli   |
| Post Office Address                  | :                        | 3 Hasidey Umot HaOlam Street, Ramat Alon, 75546 Haifa, Israel |

|                                      |       |   |
|--------------------------------------|-------|---|
| FULL NAME OF SIXTH INVENTOR , IF ANY |       | <b>BUCHSBAUM Samuel</b>                         |
| Sixth inventor's signature           | _____ | Date _____                                      |
| Residence                            | :     | 207 Avenue Barthelemy Buyer, Lyon 69005, France |
| Citizenship                          | :     | French  |
| Post Office Address                  | :     | 207 Avenue Barthelemy Buyer, Lyon 69005, France |